

**CLAIMS**

What is claimed is:

1. An apparatus for measuring body composition, the apparatus comprising:

a rigid, light transmissive platform having a top surface for supporting a user standing on the apparatus, and a bottom surface;

a plurality of support assemblies associated with the bottom surface of the platform, for supporting the platform above a surface, at least one of the assemblies having a sensor for measuring a weight of the user; and

at least two, light transmissive conductive electrodes disposed over the top surface of the platform, the electrodes for contacting portions of the user's body; wherein the electrodes provide signal information about the user's body, which is used for measuring the composition of the user's body.

2. The apparatus of claim 1, wherein the signal information includes an alternating signal applied to the user's body by one of the at least two light transmissive electrodes and a signal outputted by the user's body and sensed by the other one of the at least two transparent electrodes.

3. The apparatus of claim 1, wherein the at least two light transmissive electrodes, in aggregate, occupy a majority area of the top surface of the platform.
4. The apparatus of claim 1, wherein the at least two light transmissive electrodes are electrically isolated from one another on the top surface of the platform.
5. The apparatus of claim 1, wherein the at least two light transmissive electrodes are each formed of Indium Tin Oxide.
6. The apparatus of claim 1, wherein the at least two light transmissive electrodes are uniformly disposed over the top surface of the platform and each define a quadrant.
7. The apparatus of claim 1, wherein each of the at least two light transmissive electrodes is coupled to a contact associated with a surface of the platform, the contacts for communicating signal information to a processor for measuring body impedance and determining body composition.

8. The apparatus of claim 1, wherein at least one of the at least two light transmissive electrodes is directly coupled to a contact associated with the bottom surface of the platform, the contact for communicating the signal information to a processor for measuring body impedance and determining body composition.

9. The apparatus of claim 1, further comprising a display assembly having a housing and at least one contact disposed on an inner surface of the housing of the display assembly, the at least one contact for communicating the signal information to a processor for measuring body impedance and determining body composition, the at one contact being directly coupled to at least one of the least two light transmissive electrodes.

10. The apparatus of claim 1, wherein at least one of the at least two light transmissive electrodes is indirectly coupled to a contact associated with the bottom surface of the platform, the contact for communicating the signal information to a processor for measuring body impedance and determining body composition.

11. The apparatus of claim 10, wherein the indirect coupling of the at least one of the at least two light transmissive electrodes is through the platform.

12. The apparatus of claim 1, further comprising a display assembly for displaying a measured body weight of the user and/or a body composition of the user.

13. The apparatus of claim 1, further comprising a light transmissive electrode operable as a switch for activating or deactivating the apparatus, the light transmissive electrode disposed over the top surface of the platform.

14. An apparatus for analyzing human body composition based on a bioelectrical impedance method, the apparatus comprising:

a light transmissive platform having top and bottom surfaces;

a plurality of light transmissive electrodes disposed over the top surface of the platform for contacting an upper or toe portion of a right foot, a lower or heel portion of the right foot, an upper or toe portion of a left foot, and a lower or heel portion of the left foot;

contacts disposed over one of the top surface and bottom surface of the platform and in electrical communication with the light transmissive electrodes for providing signal communication to a processor for measuring body impedance.

15. An apparatus for analyzing human body composition based on a bioelectrical impedance method, the apparatus comprising:
- a light transmissive platform having top and bottom surfaces;
  - a first light transmissive electrode disposed over a top surface of the platform for contacting a left foot of a user;
  - a second light transmissive electrode disposed over the top surface of the platform for contacting a right foot of the user;
  - first and second contacts associated with one of the top surface and bottom surface of the platform, and respectively in electrical communication with the first and second light transmissive electrodes, the contacts providing signal communication to a processor for measuring body impedance.
16. The apparatus of claim 15, further comprising support assemblies associated with the bottom surface of the platform, the support assemblies providing at least one sensor for weight calculation to determine the user's weight.
17. A circuit for measuring body impedance, the circuit comprising:
- a voltage source;
  - a current source;

a first pair of light transmissive electrodes disposed over a top surface of a light transmissive platform, the first pair of electrodes for applying the current source to a user's body;

a second pair of light transmissive electrodes disposed over the top surface of the platform, the second pair of light transmissive electrodes for sensing a voltage outputted by the user's body; and

a processor for measuring body impedance and determining body composition based on the sensed voltage signal in response to the applied current source.

18. The circuit of claim 17, wherein the voltage source comprises a self determining frequency source.